

DEPARTMENT OF THE ARMY
Omaha District, Corps of Engineers
106 South 15th Street
Omaha, Nebraska 68102-1618

:NOTICE: Failure to acknowledge : Solicitation No. W9128F 04 R 0001
:all amendments may cause rejec- :
:tion of the offer. See FAR : Date of Issue: 04 Dec 2003
:52.215-1 of Section 00100 : New Date of Receiving Proposals:
20 May 2004

Amendment No. 0003
05 March 2003

SUBJECT: Amendment No. 0003 to Request for Proposal Solicitation Package
for Design and Construction of Critical Project Security Program (CPSP),
Missouri River Projects; Fort Peck Dam, MT; Fort Randall Dam, SD; Oahe Dam,
SD and Garrison Dam, ND

Solicitation No. W9128F 04 R 0001.

TO: Prospective Offerors and Others Concerned

1. The specifications and drawings for subject project are hereby modified
as follows (revise all specification indices, attachment lists, and drawing
indices accordingly).

a. Specifications. (Descriptive Changes.)

(1) Page 00010-1, delete date and time of bid opening shown and
substitute "20 May 2004" at "2:00 pm".

(2) SECTION 00100, PAGE 8, paragraph 12(b), delete "Postponed
Indefinitely" for the Pre-Proposal Conference and Site Visits and substitute
the following:

"Pre-Proposal Conference @ Oahe Dam	30 March 2004
Site Visit @ Oahe Dam	31 March 2004
Site Visit @ Fort Randall Dam	01 April 2004
Site Visit @ Garrison Dam	06 April 2004
Site Visit @ Fort Peck Dam	08 April 2004 "

(3) Section 01338 Page 3 thru 5, delete paragraph 1.3 in its
entirely, including subparagraphs 1.3.1 thru 1.3.5.

(4) Section 02821A Page 4, delete paragraph 2.9 and substitute
the following:

"2.9 GATE OPERATOR

Operator shall be designed and manufactured for continuous duty. Operators
shall be capable of actuating individual gate panels up to 75 feet in length
and weighing up to 2,000 pounds with a drive rail draw force requirement of no
less than 500 pounds at a minimum speed of 1.4 feet per second. AC motor shall
be continuous duty rated, totally enclosed and fan cooled. Drive Mechanism

motors shall be self-adjusting for wear compensation. Pump shall have full roller bearing construction. Hydraulic motor shall withstand a sustained pressure of 1750 psi, and continuous torque of 3350 pounds per inch. Entire operator shall be UL 325, 4th edition and UL 991, 2nd edition, listed. Drive rail shall be hot-dipped galvanized steel with integrated rack system. Gate panel shall have a drive rail rigidly attached. The rack shall be fed through the spring loaded, hydraulically driven gear, providing positive engagement."

b. Specifications (Revised and Reissued). Delete and substitute or add specification pages as noted below. The substituted pages are revised and reissued with this amendment.

<u>Pages Deleted</u>	<u>Pages Substituted or Added</u>
00010-1 thru 00010-14	00010-1 thru 00010-6
Section 01001 SUMMARY OF WORK	Section 01001 SUMMARY OF WORK

(Note: The attachments that directly follow this Section (01001) have been deleted.) For convenience, on the revised specification pages, changes have been identified by underlining of added text and strikeout of deleted text. (All portions of reissued specification pages shall apply whether or not changes thereon have been indicated.)

c. Specifications Deleted. The following specification sections are hereby deleted from the contract specifications, and are no longer part of the advertisement package.

Sections Deleted

Section 01003 ARCHITECTURAL BUILDING REQUIREMENTS
Section 08110 STEEL DOORS AND FRAMES
Section 08330G OVERHEAD ROLLING DOORS AND GRILLES (Garrison Project)
Section 08330P OVERHEAD ROLLING GRILLE (Fort Peck)
Section 08710G DOOR HARDWARE (Garrison Project)
Section 08710P DOOR HARDWARE (Fort Peck)
Section 08710R DOOR HARDWARE (Fort Randall)
Section 08810 GLASS AND GLAZING
Section 11025 FORCED ENTRY RESISTANT COMPONENTS

d. Drawings (Not Reissued). The following drawing sheets are revised as indicated below with latest revision date of 05 March 2004. These drawings are not reissued with this amendment.

- (1) Fort Peck, Sheet E7.03, delete Details A, C, and E.
- (2) Garrison Dam, Sheet E7.03, delete Details A, C, and E.
- (3) Oahe Dam, Sheet E7.03, delete Details A and C.
- (4) Fort Randall Dam, Sheet E7.03, delete Details A, C and E.

e. Drawings (Reissued). The following drawing sheets are revised with latest revision date of 2-24-04, and reissued with this amendment.

Fort Peck Dam - Reissued

1. Sheet D1.01
2. Sheet D2.01
3. Sheet C1.01
4. Sheet C1.04
5. Sheet C8.01
6. Sheet C8.02
7. Sheet C8.03
8. Sheet C8.04
9. Sheet C8.06
10. Sheet EU.01
11. Sheet EU.04
12. Sheet ES.01
13. Sheet E3.01
14. Sheet E3.03
15. Sheet E5.01
16. Sheet E5.02
17. Sheet E5.03
18. Sheet E5.08
19. Sheet E7.03
20. Sheet EP.01

Garrison Dam - Reissued

1. Sheet D2.01
2. Sheet C1.01
3. Sheet C1.04
4. Sheet C8.01
5. Sheet C8.02
6. Sheet C8.03
7. Sheet C8.04
8. Sheet C8.06
9. Sheet EU.02
10. Sheet EU.03
11. Sheet EU.04
12. Sheet ES.01
13. Sheet E3.01
14. Sheet E3.05
15. Sheet E5.01
16. Sheet E5.02
17. Sheet E5.08
18. Sheet E5.12
19. Sheet EP.01

Fort Randall Dam - Reissued

1. Sheet D2.01
2. Sheet C1.01
3. Sheet C1.02
4. Sheet C8.01
5. Sheet C8.02
6. Sheet C8.03
7. Sheet C8.04

8. Sheet C8.06
9. Sheet EU.02
10. Sheet ED.02
11. Sheet ES.01
12. Sheet ES.02
13. Sheet E3.01
14. Sheet E5.01
15. Sheet E5.02
16. Sheet E5.06
17. Sheet E5.13
18. Sheet E5.15

Oahe Dam - Reissued

1. Sheet D2.01
2. Sheet C1.01
3. Sheet C1.02
4. Sheet C8.01
5. Sheet C8.02
6. Sheet C8.03
7. Sheet C8.04
8. Sheet C8.06
9. Sheet EU.01
10. Sheet EU.02
11. Sheet ES.01
12. Sheet E3.01
13. Sheet E5.01

f. Drawings Deleted. The following drawings are hereby deleted from the contract drawings, and are no longer part of the advertisement package.

Fort Peck Dam - Deleted

1. Sheet C1.02
2. Sheet C1.03
3. Sheet C8.05
4. Sheet A1.01
5. Sheet A1.02
6. Sheet A1.05
7. Sheet A6.01
8. Sheet EU.02
9. Sheet EU.03
10. Sheet ES.02
11. Sheet ES.03
12. Sheet E3.02
13. Sheet E3.04
14. Sheet E3.05
15. Sheet E5.04
16. Sheet E5.05
17. Sheet E5.06
18. Sheet E5.07
19. Sheet E7.01
20. Sheet E7.08

Garrison Dam - Deleted

1. Sheet C1.02
2. Sheet C1.03
3. Sheet C8.05
4. Sheet A1.01
5. Sheet A1.02
6. Sheet A1.03
7. Sheet A1.04
8. Sheet A1.05
9. Sheet A1.07
10. Sheet A6.01
11. Sheet EU.01
12. Sheet EU.05
14. Sheet E3.02
15. Sheet E3.03
16. Sheet E3.04
17. Sheet E5.03
18. Sheet E5.04
19. Sheet E5.05
20. Sheet E5.06
21. Sheet E5.07
22. Sheet E7.01
23. Sheet E7.08

Fort Randall Dam - Deleted

1. Sheet C8.05
2. Sheet C8.07
3. Sheet A1.01
4. Sheet A1.02
5. Sheet A1.03
6. Sheet A1.04
7. Sheet A1.05
8. Sheet A6.01
9. Sheet ED.03
10. Sheet ED.04
11. Sheet E3.02
12. Sheet E3.03
13. Sheet E3.04
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25. Sheet E5.14
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Oahe Dam - Deleted

1. Sheet C8.05
2. Sheet E3.02
2. Sheet E3.05
3. Sheet E5.03
4. Sheet E5.05
5. Sheet E7.01
6. Sheet E7.08

2. This amendment is a part of the bidding papers and its receipt shall be acknowledged on the Standard Form 1442. All other conditions and requirements of the specifications remain unchanged. If the bids have been mailed prior to receiving this amendment, you will notify the office where bids are opened, in the specified manner, immediately of its receipt and of any changes in your bid occasioned thereby.

a. Hand-Carried Bids shall be delivered to the U.S. Army Corps of Engineers, Omaha District, Contracting Division (Room 301), 106 South 15th Street, Omaha, Nebraska 68102-1618.

b. Mailed Bids shall be addressed as noted in Item 8 on Page 00010-1 of Standard Form 1442.

3. Bids will be received until 2:00 p.m., local time at place of bid opening, 20 May 2004.

Attachments:

Spec Pages listed in 1.b. above
Dwgs. listed in 1.e. above

U.S. Army Engineer District, Omaha
Corps of Engineers
106 South 15th Street
Omaha, Nebraska 68102-1618

05 March 2004
MFS/4411

FORT PECK, MT (FP)

BASIC - Design

FP1. POWERHOUSES and SWITCHYARDS

Complete the Fort Peck Powerhouses and Switchyards CPSP Security System 95% Design and 100% Final Design. The Final Design will provide a complete functioning and integrated security system for the Fort Peck Powerhouses and Switchyards that includes: local operating security system hardware and software, system control console, perimeter fence, vehicle resistant fence cabling, vehicle resistant gate, fence sensors, gate access control, lighting, and low light CCTV PTZ camera assessment at fence gate entrance. The design objective is to control and detect vehicular access to powerhouses and switchyards. Provide lighting to the level needed to deter and identify vehicles as they approach the main gate or control points. Design includes site inspection assessments, design, construction cost estimate and construction schedule. Includes all costs related to design for labor, travel, materials, reproduction and mailing.

FP1. Total Basic: _____

OPTION - Construction

(The Government may elect to award OPTION after approval of the 100% Final Design.)

FP2. POWERHOUSES and SWITCHYARDS

Construct and install the Fort Peck CPSP Security System at the Powerhouses and Switchyards to provide a complete functioning and integrated security system that includes: local operating security system hardware and software, system control console, perimeter fence, vehicle resistant fence cabling, vehicle resistant gate, fence sensors, gate access controls, lighting, and low light CCTV PTZ camera assessment at fence gate entrance. This work also includes all training, testing and commissioning of the complete Fort Peck CPSP Powerhouses and Switchyards security system.

FP2. Total Option: _____

FP1. + FP2. Total Basic plus Option: _____

GARRISON, ND (GA)

BASIC - Design

GA1. POWERHOUSE and SWITCHYARD

Complete the Garrison Powerhouse and Switchyard CPSP Security System 95% Design and 100% Final Design. The Final Design will provide a complete functioning and integrated security system for the Garrison Powerhouse and Switchyard that includes: local operating security system hardware and software, system control console, perimeter fence, vehicle resistant fence cabling, vehicle resistant gate, fence sensors, gate access control, lighting, and low light CCTV PTZ camera assessment at fence gate entrance. The design objective is to control and detect vehicular access to the powerhouse and switchyard. Provide lighting to the level needed to deter and identify vehicles as they approach the main gate or control points. Design includes site inspection assessments, design, construction cost estimate and construction schedule. Includes all costs related to design for labor, travel, materials, reproduction and mailing.

GA1. Total Basic: _____

OPTION - Construction

(The Government may elect to award OPTION after approval of the 100% Final Design.)

GA2. POWERHOUSE and SWITCHYARD

Construct and install the Garrison CPSP Security System at the Powerhouse and Switchyard to provide a complete functioning and integrated security system that includes: local operating security system hardware and software, system control console, perimeter fence, vehicle resistant fence cabling, vehicle resistant gate, fence sensors, gate access controls, lighting, and low light CCTV PTZ camera assessment at fence gate entrance. This work also includes all training, testing and commissioning of the complete Garrison CPSP Powerhouse and Switchyard security system.

GA2. Total Option: _____

GA1. + GA2. Total Basic plus Option: _____

OAHE, SD (OA)

BASIC - Design

OA1. POWERHOUSE and SWITCHYARD

Complete the Oahe Powerhouse and Switchyard CPSP Security System 95% Design and 100% Final Design. The Final Design will provide a complete functioning and integrated security system for the Oahe Powerhouse and Switchyard that includes: local operating security system hardware and software, system control console, perimeter fence, vehicle resistant fence cabling, vehicle resistant gate, fence sensors, gate access control, lighting, and low light CCTV PTZ camera assessment at fence gate entrance. The design objective is to control and detect vehicular access to the powerhouse and switchyard. Provide lighting to the level needed to deter and identify vehicles as they approach the main gate or control points. Design includes site inspection assessments, design, construction cost estimate and construction schedule. Includes all costs related to design for labor, travel, materials, reproduction and mailing.

OA1. Total Basic: _____

OPTION - Construction

(The Government may elect to award OPTION after approval of the 100% Final Design.)

OA2. POWERHOUSE and SWITCHYARD

Construct and install the Oahe CPSP Security System at the Powerhouse and Switchyard to provide a complete functioning and integrated security system that includes: local operating security system hardware and software, system control console, perimeter fence, vehicle resistant fence cabling, vehicle resistant gate, fence sensors, gate access controls, lighting, and low light CCTV PTZ camera assessment at fence gate entrance. This work also includes all training, testing and commissioning of the complete Oahe CPSP Powerhouse and Switchyard security system.

OA2. Total Option: _____

OA1. + OA2. Total Basic plus Option: _____

FORT RANDALL, SD (RA)

BASIC - Design

RA1. POWERHOUSE and SWITCHYARD

Complete the Fort Randall Powerhouse and Switchyard CPSP Security System 95% Design and 100% Final Design. The Final Design will provide a complete functioning and integrated security system for the Fort Randall Powerhouse and Switchyard that includes: local operating security system hardware and software, system control console, perimeter fence, vehicle resistant fence cabling, vehicle resistant gate, fence sensors, gate access control, lighting, and low light CCTV PTZ camera assessment at fence gate entrance. The design objective is to control and detect vehicular access to the powerhouse and switchyard. Provide lighting to the level needed to deter and identify vehicles as they approach the main gate or control points. Design includes site inspection assessments, design, construction cost estimate and construction schedule. Includes all costs related to design for labor, travel, materials, reproduction and mailing.

RA1. Total Basic: _____

OPTION - Construction

(The Government may elect to award OPTION after approval of the 100% Final Design.)

RA2. POWERHOUSE and SWITCHYARD

Construct and install the Fort Randall CPSP Security System at the Powerhouse and Switchyard to provide a complete functioning and integrated security system that includes: local operating security system hardware and software, system control console, perimeter fence, vehicle resistant fence cabling, vehicle resistant gate, fence sensors, gate access controls, lighting, and low light CCTV PTZ camera assessment at fence gate entrance. This work also includes all training, testing and commissioning of the complete Fort Randall CPSP Powerhouse and Switchyard security system.

RA2. Total Option: _____

RA1. + RA2. Total Basic plus Option: _____

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1.2.3 Perimeter Fence Detection (Fiber Optic Fence Sensor).

1.2.4 Upgrade Existing Five (5) Cameras to Low Light CCTV PTZ Cameras.

1.2.5 Install a Telephonic Auto-Dialer in the Control Room

PART 2 GARRISON PROJECT SECURITY INSTALLATION CONTRACT CRITERIA.

2.1 OVERALL PROJECT REQUIREMENTS:

2.1.1 Provide New Separate Security Panel.

2.2 POWERHOUSE

2.2.1 Vehicle Resistant "Crash Beam" Gate on Main Entrance.

2.2.2 Perimeter Fence.

2.2.3 Perimeter Fence Detection (Fiber Optic Fence Sensor).

2.2.4 Six (6) Low Light CCTV PTZ Cameras.

2.2.5 Install a Telephone Auto-Dialer for Notification of Local Law Enforcement.

PART 3 OAHE PROJECT SECURITY INSTALLATION CONTRACT CRITERIA.

3.1 Overall Project Requirements:

3.1.1 Provide New Separate Security Panel.

3.2 POWERHOUSE

3.2.1 Automated Vehicle Resistant "Crash Beam" Gate on Main Entrance.

3.2.2 Upgrade PH Perimeter Fence.

3.2.3 Five (5) Low Light CCTV PTZ Cameras.

3.2.4 Improve Shale Drain Bldg. Access Gate.

3.2.5 Install a Telephone Auto-Dialer in Control Room.

PART 4 FORT RANDALL PROJECT SECURITY INSTALLATION CONTRACT CRITERIA.

4.1 Overall Project Requirements:

4.1.1 Provide New Separate Security Panel.

4.2 POWERHOUSE:

4.2.1 Automated Vehicle Resistant "Crash Beam" Gate on Main Entrance.

4.2.2 Repair/Upgrade Existing Fence.

4.2.3 Perimeter Fence Detection (Fiber Optic Fence Sensor).

4.2.4 Upgrade Existing Cameras to Low Light PTZ Cameras.

4.2.5 Security Workstation in Control Room.

4.2.6 Install Telephonic Auto-Dialer

4.2.7 Not Used

-- End of Section Table of Contents --

SECTION 01001**SUMMARY OF WORK**

Attachments: Fort Peck Instrumentation Inventory and Figures
Garrison Instrumentation Inventory and Figures
Oahe Instrumentation Inventory and Figures
Fort Randall Instrumentation Inventory and Figures

PART 1 FORT PECK PROJECT SECURITY INSTALLATION CONTRACT CRITERIA.

Security upgrades to existing systems and additions, incorporating increased detection and delay features. Provides deterrence of unsophisticated adversaries and support of armed guards at heightened Force Protection levels. All new equipment shall meet with Electronic Security Center's (ESC) specifications for the CPSP Program.

1.1 OVERALL PROJECT REQUIREMENTS:**1.1.1 Provide New Separate Security Panel.**

New panel (full system mean if more than on panel is require provide what is need) shall separate security detection system from fire detection system, from the current Notifier panels. New security panels shall form an integrated security detection system with alarm assessment provided by closed circuit television cameras (CCTV's) with a view of the alarming area. When a security alarm occurs, the system shall automatically bring up the CCTV with the view of the alarmed area. The new security system shall have provisions to support a future centralized reporting center (remote from site). These provisions shall include all security alarm monitoring and control functions along with all video and CCTV controls precisely as they are for the on-site monitoring center. The system shall be provided with an operator control/monitoring console which shall consist of two 19" monitors, one keyboard, one mouse/pointer device, and one CCTV controller for selecting CCTVs and controlling pan-tilt-zoom functions. This console shall be located in the Control Room. The other panels required for the security systems should be located in or near the existing Computer Room. The system shall provide not less than 7 days online digital storage for all cameras including camera number, locate, date, and time stamping.

1.1.2 New Portable Guard Booth with Support Connections.
~~See Section 01003 for requirements.~~**1.1.3 Provide New Fiber Optic Cable from Powerhouse to Shafts.**

~~New 12 count fiber optic cable shall support communications for new security system, CCTV video and controls. Designers shall coordinate trenching locations with project to assure that dam safety concerns are met.~~

1.1.4 Provide New Fiber Optic Cable from Powerhouse to Spillway.

~~New 12 count fiber optic cable shall support communications for new security system, CCTV video and controls. Designers shall coordinate trenching locations with project to assure that dam safety concerns are met.~~

1.2 POWERHOUSE:

1.2.1 Automated Vehicle Resistant "Crash Beam" Gate on Main Entrance.

1. Install new vehicle resistant "crash beam" gate located per plan.
2. Provide Access/Control reader inside/outside gate.
3. Provide 2 cameras, lights, phone/intercom at main gate.
4. Provide new Cantilever slide gate with Electro-Mechanical lock.

1.2.2 Repair/Upgrade Existing Fence.

1. Relocate East gate approximately 70' North.
2. See PH sketch for perimeter requirements.
3. All fence replaced/retensioned, bottom rails, etc., to meet FE 6sensor requirements.
4. Provide double cable barrier system where indicated on sketch.
5. Extend fence/gate out past Tunnel #4.
6. Perimeter security lighting required. Consider relocation of roadway lights for fence lighting. Meet FC levels with uniformity requirement.

1.2.3 Perimeter Fence Detection (Fiber Optic Fence Sensor).

Install CCTV assessment and additional lighting.

1.2.4 Upgrade Existing Five (5) Cameras to Low Light CCTV PTZ Cameras.

1. Replace all existing cameras with new pan-tilt-zoom (PTZ) cameras in accordance with ESC specifications.
2. Add new cameras as required for 100% coverage of the perimeter fence.
3. Design to confirm exact number and location for PTZ cameras.
4. Include digital storage for all cameras.

~~1.2.5 Install Window Guards on Interior of Ground Level Windows to a Height of 14 Feet.~~

~~If glass blocks exist, delete requirement.~~

~~Other openings will require window guards. Window guards shall be as indicated in Section 01003.~~

~~1.2.6 Replace Existing Doors With Security Rated Doors.~~

- ~~1. Visitor Lobby: Replace inner door/frame with new Security Rated door/frame with 96 square inch viewing panel and add dual technology interior volumetric sensors located in foyer.~~
- ~~2. Control Room: Replace double door with security doors with removable mullion and 96 square inch viewing panel.~~
- ~~3. Locker Room: Replace door with security door with 96 square inch viewing panel.~~

~~Doors and Glass shall be as indicated in Section 01003.~~

~~1.2.7 Install Electric Strike Locks With Card Readers on the Doors.~~

~~Total 3 doors. Include hardware for PIN access at Charlie/Delta.~~

~~Main double door at Control Room.~~

~~North door.~~

~~Transformer Service Bay entrance door.~~

~~See Section 00110, Recommended Equipment List, paragraph 5.4.1.1 for Description of Electric Strikes and Card Readers and Section 01003 for additional door hardware requirements.~~

~~1.2.8 Deadbolt all Other Exterior Doors.~~

~~Not at doors with card readers.~~

~~Install panic bars only on new exterior doors.~~

~~Door hardware shall be as indicated in Section 01003.~~

1.2.5 Install a Telephonic Auto-Dialer in the Control Room

Auto-dialer shall connect the alarm monitor to local law enforcement offices to initiate if operator fails to respond to a security alarm condition within a specified time frame.

1.2.11 Tailrace Door (PH1), use Overhead Door Contact Switch.

~~Provide new overhead door contact switch for Tailrace Door.~~

1.2.12 At Switchyard Tunnel, use Dual Tech Sensor and BMS Or Contact Switch on Hatch Cover.

~~Control/Power Tunnel to Switchyard #1.~~

1.2.13 Tailrace Door (PH 2). Replace Double Doors.

~~New doors shall be security door, removable mullion, and vision panel. Refer to Section 01003 for STEEL DOORS AND FRAMES and DOOR HARDWARE requirements.~~

1.3 SHAFTS (INTAKES):

1.3.1 Fence Repairs as Needed.

~~Repair/Upgrade fence. Clear vegetation along fence. Replace existing swing gate with new double swing gate, manually operated, no sensors. Provide Jersey barriers for rear gate and provide Jersey barriers for main gate. See Intake sketch.~~

1.3.2 Install Two (2) Low Light CCTV Cameras.

~~Provide two new cameras. Locate CCTV on corners of Emergency Control Shaft Bldg's 1 & 4.~~

1.3.3 Add Expanded Metal Mesh on Tunnel Vents.

~~Expanded metal mesh on tunnel vents only. Refer to Section 01003 for WINDOW GUARDS.~~

1.3.4 Replace All Existing Detectors With Dual Tech.

~~Cut off power for gate controls and cranes at Shaft Bldg's at the Substation Bldg. with feedback to security system when power is normally off. Provide protection for power panel at Substation Bldg. Zoned by individual bldg's or addressable.~~

1.3.5 Connect Existing BMS and PIR to New Fiber Optic Cable.

~~The Contractor shall replace existing passive infrared detectors (PIR) with dual technology interior volumetric sensors from the ESC preferred equipment list. New and existing security equipment will connect to new fiber back to the new security panel.~~

1.3.6 Hardened Exterior Solid Grates Around Main Control Bldg's 3 and 4.

~~Harden to prevent a crowbar access from lifting grates to gain access.~~

1.4 SPILLWAY:

1.4.1 Repair Fences as Needed.

~~Repair/Upgrade fence at upper and lower cat walks, both ends, to increase resistance to entry. See Spillway sketch.~~

~~1.4.2 Install Two (2) Low Light Cameras.~~~~Add one PTZ camera to top corner of Tower Building toward upstream side of spillway.~~~~Add PTZ camera tower toward maintenance building on upstream side.~~~~1.4.3 Connect Existing BMS and PIR to New Fiber Optic Cable.~~~~The Contractor shall replace existing PIR with dual technology interior volumetric sensors from the ESC preferred equipment list. New and existing security equipment will connect to new fiber back to the new security panel.~~~~1.5 EMBANKMENT:~~~~Attachments:~~~~Fort Peck Instrumentation Inventory and Figures~~~~1.5.1 Hardening around Relief Wells and Relief Well Piezometers.~~~~Relief Wells #3A through 19A and Relief Well Piezometers as identified in Fort Peck Instrumentation Drawing and in Piezometer Inventory at the toe of the embankment shall be hardened by encasing the protective cover in concrete and installing a high security locking mechanism. The details of the hardening shall be coordinated with the dam safety program so as to not inhibit future measurement of water output quantities and levels, down hole camera monitoring or cleanout operations. All locks installed at the hardened instrumentation shall be identically keyed to other instrumentation locks.~~~~1.5.2 High Security Locks with Shackles on Relief Wells.~~~~High security locking mechanism(s) installed at each of Relief Wells on the left abutment as identified in the relief well inventory and Fort Peck Instrumentation Drawings shall be installed to further restrain and hinder the removal of the upper portion of the protective well casing. Typical relief well details are provided. Alterations to the casing, if necessary, shall be coordinated with the dam safety program so as to not inhibit future water output measurement, down hole camera monitoring or cleanout operations. All locks installed at the relief wells shall be identically keyed to other instrumentation locks.~~~~1.5.3 High Security Locks with Shackles on Piezometers.~~~~High security locking mechanisms installed at each Piezometer located on the embankment and left abutment area as shown in the Fort Peck Instrumentation Drawings shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. A typical piezometer detail is provided. Alterations to the casing, if necessary, shall be coordinated with the dam safety program so as to not inhibit the future measurement of water levels, down hole camera monitoring or cleanout operations. All locks installed at the piezometers shall be identically keyed to other instrumentation locks.~~~~1.5.4 High Security Locks with Shackles on Inclinometers.~~~~High security locking mechanisms installed at each of the Inclinometers as identified in the inclinometer inventory and Fort Peck Instrumentation Drawings shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. A typical inclinometer detail is provided. Alterations to the casing, if necessary, shall not inhibit the attainment of future measurements with downhole equipment, down hole camera monitoring or cleanout operations. All locks installed at the inclinometers shall be identically keyed to other instrumentation locks.~~

~~1.5.5 Steel Security Bars with High Security Locks on Manholes.~~

~~Secure manhole covers that are routinely accessed with steel security bars or other approved means and high security locks. Manholes requiring the high security locking mechanisms are at the right abutment and in the left abutment areas as shown in the Fort Peck Instrumentation Drawings. Note that some of the existing manholes might be flush with existing ground and might require that locking mechanism be recessed. All locks installed at the manholes shall be identically keyed to other instrumentation locks.~~

~~1.5.6 Install Man-Proof Grates With Locks Over Outfalls.~~

~~Manproof entry bars should be installed at the toe drain outfall, in the left abutment area and the right abutment, shown in the Fort Peck Instrumentation Drawings. Outfall pipes have diameters between 1 and 3 feet. Coordination with the Dam Safety Program will be required so as to not inhibit future flow measurements at these locations. All locks installed at the outfalls shall be identically keyed to other instrumentation locks.~~

~~1.5.7 High Security Locks with Shackles on Seepage Pipes and Toe Drain Standpipe.~~

~~High security locking mechanisms installed at each Seepage Pipe and at the Toe Drain Standpipe located on the embankment as shown in the Fort Peck Instrumentation Drawings shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. A typical Seepage Pipe detail is provided. Alterations to the casing, if necessary, shall be coordinated with the dam safety program so as to not inhibit the future measurement of water levels, down hole camera monitoring or cleanout operations. All locks installed at the seepage pipes and standpipe shall be identically keyed to other instrumentation locks.~~

PART 2 GARRISON PROJECT SECURITY INSTALLATION CONTRACT CRITERIA.

Security upgrades to existing systems and additions, incorporating increased detection and delay features. Provides deterrence of unsophisticated adversaries and support of armed guards at heightened Force Protection levels. All new equipment shall meet with Electronic Security Center's (ESC) specifications for the CPSP Program.

2.1 OVERALL PROJECT REQUIREMENTS:**2.1.1 Provide New Separate Security Panel.**

New panel (full system mean if more than one panel is required provide what is needed) shall separate security detection system from fire detection system, which exists in the current Notifier panels. New security panels shall form an integrated security detection system with alarm assessment provided by CCTV's with a view of the alarming area. When a security alarm occurs, the system shall automatically bring up the CCTV with the view of the alarmed area. The new security system shall have provisions to support a future centralized reporting center (remote from site). These provisions shall include all security alarm monitoring and control functions along with all video and CCTV controls precisely as they are for the on-site monitoring center. The system shall be provided with an operator control/monitoring console which shall consist of two 19" monitors, one keyboard, one mouse/pointer device, and one CCTV controller for selecting CCTVs and controlling pan-tilt-zoom functions. This console shall be located in the Control Room. The other panels required for the security systems should be located in or near the existing Computer Room. The system shall provide not less than 7 days online digital storage for all cameras including camera number, location, date, and time stamping.

~~2.1.2 New Portable Guard Booth with Support Connections.~~

~~The new guard booth shall be as specified in Section 01003.~~

~~2.1.3 Provide New Fiber Optic Cable from Powerhouse to Spillway.~~

~~New 12 count fiber optic cable shall support communications for new security system, CCTV video and controls. Designers shall coordinate trenching locations with project to assure that dam safety concerns are met.~~

~~2.1.4 Provide New 300 Pair Telephone Cable from Powerhouse to Spillway.~~

~~New telephone cable is shall be installed along side with new 12 count fiber optic cable in the same trench and will replace existing failing telephone cable. The telephone call will support existing operations functions and new security communications requirements.~~

~~2.1.5 Provide New Fiber Optic Cable from Powerhouse to Intake.~~

~~New 12 count fiber optic cable shall support communications for new security system, CCTV video and controls. Designers shall coordinate trenching locations with project to assure that dam safety concerns are met.~~

~~2.1.6 Architectural Requirements.~~

~~1. Provide security improvements at project site for doors and windows. All doors and frames shall be constructed in conformance with the design which satisfactorily meets the requirements for commercial security rated doors as specified herein and in Section 01003.~~

~~4. All designated doors shall be equipped with BMS (Balance Magnetic~~

~~Switch) contacts.~~

~~5. Replace window glass with laminated glass, at designated locations on project.~~

~~6. Provide man proofing security bars at and window guards at designated locations on project, that will prevent access into critical project areas.~~

2.2 POWERHOUSE

2.2.1 Vehicle Resistant "Crash Beam" Gate on Main Entrance.

New cantilever slide gate with electro-Mechanical lock, and a vehicle resistant crash beam gate, location per powerhouse sketch.

2.2.2 Perimeter Fence.

New FE 6 Fence, approximately 3500'.

New FE 6 Fence with vehicle resistant double cable (2¼"), approximately 9000'.

2.2.3 Perimeter Fence Detection (Fiber Optic Fence Sensor).

Install CCTV assessment and additional lighting.

2.2.4 Six (6) Low Light CCTV PTZ Cameras.

6 exterior dome PTZ cameras, which include the replacement and/or relocation of 5 existing project PTZ cameras. Design to confirm exact number and location for PTZ cameras.

2.2.5 Laminated Glass on North, South, and East Powerhouse Doors.

~~Use 1" insulated laminated glass for perimeter doors and windows only. See Section 01003 for window guards, doors, glass, and door hardware requirements.~~

~~1. Install 1" insulated laminated glass in the double doors, and side glass at front entry point to powerhouse. If laminated glass can not be installed in existing door and window frames, install new security-rated doors and frames. (See drawings for location).~~

~~2. Remove and replace existing 3'-0" door at Control Room and Draft Tube Deck, with security rated door and 1" insulated laminated glass opening no larger than 1'-0" square. Provide BMS (Balance Magnetic Switch) contacts in door. (See drawings for location)~~

~~3. Remove and replace existing 3'-0" door at west end of powerhouse with security rated door, with an insulated laminated glass opening no larger than 1'-0" square. Provide BMS (Balance Magnetic Switch) contacts in door. (See drawings for location)~~

~~4. Install insulated laminated glass in the 3'-0" door, and in all glass surfaces at this location north side of powerhouse. If laminated glass can not be installed in existing door and window frames, install new security rated doors and frames. (See drawings for location)~~

~~5. Install window guards on the inside of window, located in the stairwell on north side of powerhouse. This is to prevent access into building from this point. (See drawings for location).~~

~~6. Install insulated laminated glass in BI folding and hatch door, located at Generator Bay and Draft Tube Deck. (See drawings for location)~~

2.2.6 Infrared Beam Break Sensor on Two Double Doors on North Side of Surge Tank Building.

~~No Mag lock; electric strike only. Install access control (proximity type-card reader). Replace roof door and lock.~~

~~Install metal grating/window guards at three locations on the Surge Tank~~

~~Building. See Section 01003 for window guards, doors, glass, and door hardware requirements.~~

- ~~1. Install on two sets of Double doors located on the north side of surge tank building.~~
- ~~2. Install window guards over glass opening on door on the roof of the surge tank building.~~
- ~~3. BMS (Balance Magnetic Switches) will be used at this location see electrical for locations.~~

~~2.2.7. Electric Strike Locks on the North, South Powerhouse Doors and Two Control Room Doors.~~

~~Add access control (card readers) See Section 00110, Recommended Equipment List, paragraph 5.4.1.1 for Description of Electric Strikes and Card Readers and Section 01003 for additional door hardware requirements.~~

~~2.2.5 Install a Telephone Auto-Dialer for Notification of Local Law Enforcement.~~

~~Telephone Auto-Dialer.~~

~~2.3 SWITCHYARD:~~

~~2.3.1 BMS on Fan Building Door.~~

~~If not a security door, replace with security door and embedded contact switch. Otherwise use beam break sensor. See Section 01003 for window guards, doors, glass, and door hardware requirements.~~

~~2.3.2 Wire Mesh on all Louvers in the Fan Building.~~

~~Replace wire mesh with bar grate/man bars on all louvers, dual technology interior volumetric sensors at tunnel entrance. Man bars shall consist of a continuous 2 1/2" wide by 1/2" thick steel bar frame at the perimeter with 1/2" diameter steel bars at 6" O.C. each direction, welded to continuous steel frame. Provide steel angles as required for attachment to louver frames.~~

~~2.4 INTAKE STRUCTURE:~~

~~2.4.1 Two (2) Low Light PTZ Cameras (1 on Bridge and 1 Inside Structure).~~

~~Exterior PTZ camera to be mounted on northwest corner of structure. Supplemental lighting required on west and north faces of structure for camera assessment.~~

~~2.4.2 2 Beam Break Sensors on the Roller Doors.~~

~~Install metal grating over windows and hatch door window in the overhead lift door, located on the north side. Grating is to be secured on the inside surface around the windows. The other hatch door location is on the west side, in overhead lift door. (See drawings for location). Replace lockset hardware for the two hatch doors located in the overhead lift doors. Replace with heavy duty security grade locksets, and consider the use of "fish plates" or cover plates over the latch and hinge areas. (See drawings for locations)~~

~~2.4.3 5 New security Doors With Embedded Contact Switch.~~

~~Front door requires insulated Laminated glass. Remove and replace 3 exterior doors located on the north side on intake deck, with security-rated doors. All doors will have no large than 1' 0" square glass opening in door, with BMS (Balance magnetic Switch) contacts. At two locations there are outer door being used, and will remain in place. (See drawings for location). See Section 01003 for window guards, doors, glass, and door hardware requirements.~~

~~2.4.4 Monostatic Microwave Sensor at the Bridge Gate.~~~~Replace cable with gated at West face of intake structure.~~~~2.4.5 Vehicle Resistant "Crash Beam" Gate on Bridge.~~~~Remove existing gate and install new double swing gate and a vehicle-resistant "crash beam" gate.~~~~2.4.6 Existing Fence Repairs.~~~~Repair/Upgrade existing fence.~~~~2.5 OUTLET WORKS:~~~~2.5.1 Grating Over Outfalls of Tunnels 6,7 & 8.~~~~Man proof grating shall be placed in the existing bulkhead slots such that one could not squeeze through. It must be removable by use of the existing lifting beam and crane. The grating must not exceed capacities of existing equipment. Considerations for design must include hydraulic forces, ice and impact from a small fishing boat. Corrosion effects must be considered.~~~~2.6 SPILLWAY:~~~~2.6.1 Two (2) Low Light PTZ Cameras.~~~~One camera on each end (upper deck east & west) of spillway. Cameras shall be positioned so that with the PTZ one camera can get views of the upper and lower catwalks on the east side and the other camera can get views of the upper and lower catwalks on the west side.~~~~2.6.2 Eight feet (8') High Fence Extension.~~~~New FE 6 fence on bridge on both ends to protect Monorail. Install new FE 6 fence on embankment, tie into existing fence. Terminate new fence where stairs intersect ground. Include new personnel gates. See Spillway sketch.~~~~2.6.3 Improvements to Existing Fence.~~~~Repair/Upgrade existing fence.~~~~2.6.4 Upgrade Existing Personnel Doors.~~~~Install metal grating/window guards at five locations on control building. Grating/window guards are to be secured from the inside. See Section 01003 for window guards, doors, glass, and door hardware requirements.~~

- ~~1. Door at top level of control building.~~
- ~~2. Door on lower west side ground level of control building.~~
- ~~3. Two windows on lower west side ground level of control building.~~
- ~~4. Window on south side of control building.~~
- ~~5. BMS (Balance Magnetic Switches) will be used at this location see electrical for locations.~~

~~2.6.5 Mono Static Motion Detection on Lower Catwalk.~~~~Consider mono static vs. fiber fence sensor. Add lights if fencing is selected.~~~~2.6.6 BMS on All 3 Doors Leading into Spillway Building.~~~~Install BMS for the 2 man doors, consider BMS or dual technology interior volumetric sensors curtain for overhead door. See Section 00110, Recommended Equipment List, paragraph 5.4.1.1 for Description of Electric Strikes and Card Readers and Section 01003 for additional door hardware requirements.~~

~~2.6.7 Window Guards on all Spillway Building Windows.~~

~~Replace with expanded metal grating mounted on the inside on lower floor windows only. See Section 01003 for window guard requirements.~~

~~2.7 EMBANKMENT:~~~~Attachments:~~

~~Garrison Instrumentation Inventory and Figures~~

~~2.7.1 High Security Locks with Shackles on Relief Wells~~

~~High security locking mechanism(s) installed at each of Relief Wells #1 #53 as identified in the relief well inventory and Figure No. 1. Locking mechanisms shall be installed to further restrain and hinder the removal of the upper portion of the protective well casing. Typical relief well details are provided in Figure No. 11. Alterations to the casing, if necessary, shall be coordinated with the dam safety program so as to not inhibit future down hole camera monitoring or cleanout operations. All locks installed at the relief wells shall be identically keyed.~~

~~2.7.2 High Security Locks with Shackles on Piezometers~~

~~High security locking mechanism(s) installed at each Piezometer located within the East Abutment (Figure No. 3), West Abutment (Figure No. 4), and Valley (Figure No. 5) areas. Locking mechanisms shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. A typical piezometer detail is provided. Alterations to the casing, if necessary, shall be coordinated with the dam safety program so as to not inhibit the future measurement of water levels. All locks installed at the piezometers shall be identically keyed.~~

~~2.7.3 High Security Locks with Shackles on Inclinometers.~~

~~High security locking mechanism(s) installed at each of Inclinometer Numbers Cxx 2T thru Cxx 15T as identified in the inclinometer inventory and Figure No. 6. Locking mechanisms shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. A typical inclinometer detail is provided. Alterations to the casing, if necessary, shall not inhibit the attainment of future measurements with downhole equipment. All locks installed at the inclinometers shall be identically keyed.~~

~~2.7.4 Weld Manhole Covers to Manholes.~~

~~Secure underdrain manhole covers that are not routinely accessed to underlying manhole more permanently by spot welding or other approved means. Manholes requiring welding are shown shaded in blue in Figures 2, 7, 8, and 9.~~

~~2.7.5 Steel Security Bars with High Security Locks on Manholes.~~

~~Secure underdrain manhole covers that are routinely accessed with steel security bars or other approved means and high security locks. Manholes requiring the high security locking mechanisms are shown shaded in green in Figures 2, 7, 8, and 9. Note that some of the existing manholes might be flush with existing ground and might require that locking mechanism be recessed. All locks installed at the manholes shall be identically keyed.~~

~~2.7.6 — Remove Terminal Well Manholes and Backfill Structure with Grout.~~

~~Abandon terminal wells by removing manhole cover and riser materials that are located within approximately one foot of the existing ground surface, infilling the remaining structure with grout, and placing topsoil to restore existing grade. Terminal well locations are shown in Figure 10. Each well is approximately 10 ft wide x 10 ft long x 7 feet high and located approximately 20 feet below existing grade. Openings at the base of the well should be suitably plugged prior to grouting. Grouting operations shall be performed in stages with consideration given to minimizing pressures applied at the base of the well.~~

~~2.7.7 — Abandon Inclinometer~~

~~Abandon Inclinometer No G71 1T shown in Figure 6 by removing protective casing, injecting the casing with grout in stages to within 12 inches of existing grade and placing topsoil to restore existing grade.~~

~~2.7.8 — Hardening Relief Wells.~~

~~Relief Wells #58-65 as identified in Figure No. 2 shall be hardened by encasing the sides of the protective cover in concrete and installing a high security locking mechanism. The details of the hardening shall be coordinated with the dam safety program so as to not inhibit future down-hole camera monitoring or cleanout operations. All locks installed at the relief wells shall be identically keyed.~~

~~2.7.9 — Install Man-Proof Grates With Locks Over Outfalls.~~

~~Manproof entry bars should be installed at the five toe drain outfalls (refer to Figure No. 7) and the switchyard outfall (see Figure No 2). Outfall pipes have diameters between 3 and 5 feet. Coordination with the Dam Safety Program will be required so as to not inhibit future flow measurements at these locations. All locks installed at the outfalls shall be identically keyed.~~

PART 3 OAHE PROJECT SECURITY INSTALLATION CONTRACT CRITERIA.

Security upgrades to existing systems and additions, incorporating increased detection and delay features. Provides deterrence of unsophisticated adversaries and support of armed guards at heightened Force Protection levels. All new equipment shall meet with Electronic Security Center's (ESC) specifications for the CPSP Program.

3.1 Overall Project Requirements:**3.1.1 Provide New Separate Security Panel.**

New panel (full system mean if more than one panel is required provide what is needed) shall separate security detection system from fire detection system, which exists in the current Notifier panels. New security panels shall form an integrated security detection system with alarm assessment provided by CCTV's with a view of the alarming area. When a security alarm occurs, the system shall automatically bring up the CCTV with the view of the alarmed area. The new security system shall have provisions to support a future centralized reporting center (remote from site). These provisions shall include all security alarm monitoring and control functions along with all video and CCTV controls precisely as they are for the on-site monitoring center. The system shall be provided with an operator control/monitoring console which shall consist of two 19" monitors, one keyboard, one mouse/pointer device, and one CCTV controller for selecting CCTV's and controlling pan-tilt-zoom functions. This console shall be located in the Control Room. The other panels required for the security systems should be located in or near the existing Computer Room. The system shall provide not less than 7 days online digital storage for all cameras including camera number, location, date, and time stamping.

~~3.1.2 New Portable Guard Booth with Support Connections.~~

~~The new guard booth shall be as specified in Section 01003.~~

3.2 POWERHOUSE**3.2.1 Automated Vehicle Resistant "Crash Beam" Gate on Main Entrance.**

Located at West Gate per sketch. Relocate fence and new cantilever slidegate along with crash beam gate approx. 30' East. Install proximity card reader both inside and outside the gate accessible from the driver's side.

Install CCTV mounted so as to view the driver as he approaches the gate from the outside. Provide additional lighting so that driver's facial features are easily visible from CCTV's monitor.

3.2.2 Upgrade PH Perimeter Fence.

1. Revise fence line per sketch.
2. Upgrade existing fencing around PH and switchyard to meet FE 6.
3. Install vehicle resistance double cable according to sketch.
4. Install new fiber optic fence sensor cabling on powerhouse perimeter fence.
5. For the switchyard fence, only the fence that is closest to the PH will have vehicle resistance double cable and fiber optic fence sensor cabling. See Powerhouse sketch.
6. Existing fence shall have fabric tightened as necessary for proper application of the new fiber optic fence sensor cabling.
7. No fiber optic fence sensor cabling on the exterior fencing for the switchyard.
8. Make revisions to fence on East side of PH near tailrace deck.
9. All new sensorized fencing shall have top wire and a bottom rail, as

a minimum.

10. Existing fencing with top rails shall be upgraded with bottom rails, outriggers, etc., as long as existing fence meets all other security requirements.

11. Remove existing center vehicle gate on North PH fence. See sketch.

3.2.3 Five (5) Low Light CCTV PTZ Cameras.

1. Replacement existing CCTV cameras with new exterior dome PTZ CCTV cameras. Contractor shall confirm exact number and location for PTZ cameras and shall adjust number and location for 100% coverage of the perimeter fence line.

2. Contractor shall add new lights as necessary for proper illumination of the perimeter fence line to provide 100% CCTV coverage.

3.2.4 ~~Replace Exterior Doors with Security Rated Doors.~~

~~Replace all exterior personnel doors with rated doors.~~

~~Replace double doors at Shale Drain Building with removable mullion.~~

~~Replace PH visitor's area inner door with rated door and frame.~~

~~Install proximity type card reader and electric strike locks for approx. 11 doors including the Control Room. See attached drawing.~~

~~Install embedded magnetic door switches for new rated doors.~~

~~Install panic hardware for new rated doors.~~

~~See Section 01003 for window guards, doors, glass, and door hardware requirements.~~

3.2.5 ~~Replace Control Doors with Security Rated Doors.~~

~~Replace double doors with removable mullion and 96 square inch viewing panel.~~

~~Install proximity type card reader and electric strike locks.~~

~~Install embedded magnetic door switches for new rated doors.~~

~~see Section 01003 for window guards, doors, glass, and door hardware requirements.~~

3.2.6 ~~Install sensors at Surge Tank Overhead Doors.~~

~~Existing Surge Tank Building overhead doors shall be provided with new dual technology interior volumetric sensors near doors.~~

3.2.7 ~~Generator/Erection Bay Improvements~~

~~1. Install dual technology interior volumetric sensors near the Erection Bay door and the Transformer Entrance door.~~

~~2. Install one interior PTZ CCTV camera in Erection Bay with views of the Erection Bay door, the Transformer Entrance door and Control Room door.~~

3.2.8 ~~Add Man Bars on Two Shale Drain Tunnel Ventilation Intake Shafts.~~

~~Secure two (2) ventilation intake shafts on embankment to preclude personnel access. Contractor shall investigate adding additional man bars at shaft's bottom, which would be secured from the inside.~~

3.2.4 Improve Shale Drain Bldg. Access Gate.

Install "speed bump" under fence gate at Shale Drain Bldg. to prevent crawling under gate.

3.2.5 Install a Telephone Auto-Dialer in Control Room.

Auto-dialer shall connect the alarm monitor to local law enforcement offices to initiate if operator fails to respond to a security alarm condition within a specified time frame.

~~3.3 SWITCHYARD:~~**~~3.3.1 BMS on Tunnel Access Building Doors.~~**~~Total 2 doors.~~~~Otherwise use beam break sensor.~~**~~3.4 INTAKE STRUCTURE:~~****~~3.4.1 Vehicle Resistant "Crash Beam" Gate on Bridge.~~**~~Remove existing gate and install new double swing gate and a vehicle resistant crash beam gate.~~~~Improve lighting for gate.~~**~~3.4.2 Replace Doors with Security Rated Doors.~~**~~Total of 3 doors. Use embedded magnetic switches. See Section 01003 for window guards, doors, glass, and door hardware requirements.~~**~~3.4.3 New Exhaust Fans.~~**~~Replace glass blocks at two stairway towers with exhaust fans sized as required to remove heat from two rotary screw bubbler compressors (150 KW/each). This is to replace door louvers from 3 doors removed above. Provide individual thermostatic controls and on fan in tower 1 and the other in tower 7.~~**~~3.4.4 Beam Break Sensors on the Hoist Room Doors.~~**~~Total of 7.~~**~~3.5 OUTLET WORKS:~~****~~3.5.1 New Security Rated Doors.~~**~~Monitor door/internal alarms only.~~~~Use rated personnel doors with embedded magnetic switches. See Section 01003 for window guards, doors, glass, and door hardware requirements.~~**~~3.5.2 Not Used~~****~~3.5.3 Repair Fence and Gates.~~**~~Repair/Upgrade fence and gates~~**~~3.6 SPILLWAY:~~****~~3.6.1 Eight Feet (8') High Fence Extension on the Bridge.~~**~~Fence spillway bridge with new FE 6 fence on upstream and downstream sides of bridge. Extend past stairwells, provide new personnel gates. Extend 30' beyond structures/landing below (upstream); downstream match. See sketch.~~**~~3.6.2 Security Rated Doors into Spillway Abutment Buildings.~~**~~On the 2 abutments, use rated doors.~~~~Total 8 doors (4 doors/side) with embedded magnetic switches.~~~~Use existing communication (telephone) cable for reporting back to system. See Section 01003 for window guards, doors, glass, and door hardware requirements.~~**~~3.7 EMBANKMENT:~~**~~Attachments:~~~~Oahe Instrumentation Inventory and Figures~~

3.7.1 High Security Locks with Shackles on Relief Wells.

~~High security locking mechanism(s) installed at each of the Relief Wells at the toe of the embankment as identified in the relief well inventory and Oahe Instrumentation Drawings. Locking mechanisms shall be installed to further restrain and hinder the removal of the upper portion of the protective well casing. Typical relief well details are provided. Alterations to the casing, if necessary, shall be coordinated with the dam safety program so as to not inhibit future water output measurement, down hole camera monitoring or cleanout operations. All locks installed at the relief wells shall be identically keyed to other instrumentation locks.~~

3.7.2 High Security Locks with Shackles on Piezometers.

~~High security locking mechanisms installed at each Piezometer located on the embankment and at the toe of the embankment as shown in the Oahe Instrumentation Drawings shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. A typical piezometer detail is provided. Alterations to the casing, if necessary, shall be coordinated with the dam safety program so as to not inhibit the future measurement of water levels, down hole camera monitoring or cleanout operations. All locks installed at the piezometers shall be identically keyed to other instrumentation locks.~~

3.7.3 High Security Locks with Shackles on Inclinometers.

~~High security locking mechanisms installed at each of the Inclinometers as identified in the inclinometer inventory and Oahe Instrumentation Drawings shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. A typical inclinometer detail is provided. Alterations to the casing, if necessary, shall not inhibit the attainment of future measurements with downhole equipment, down hole camera monitoring or cleanout operations. All locks installed at the inclinometers shall be identically keyed to other instrumentation locks.~~

3.7.4 Steel Security Bars with High Security Locks on Manholes.

~~Secure manhole covers that are routinely accessed with steel security bars or other approved means and high security locks. Manholes requiring the high security locking mechanisms are at the right abutment and on the embankment as shown in the Oahe Instrumentation Drawings. Note that some of the existing manholes might be flush with existing ground and might require that locking mechanism be recessed. All locks installed at the manholes shall be identically keyed to other instrumentation locks.~~

3.7.5 Install Man Proof Grates With Locks Over Outfalls.

~~Manproof entry bars should be installed on the right abutment drain outfall as shown in the Oahe Instrumentation Drawings. Coordination with the Dam Safety Program will be required so as to not inhibit future flow measurements at this locations. All locks installed at the outfall shall be identically keyed to other instrumentation locks.~~

3.7.6 High Security Locks with Shackles on Settlement Gage Piezometers.

~~High security locking mechanisms installed at each Settlement Gage Piezometer located on the embankment as shown in the Oahe Instrumentation Drawings shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. A typical Settlement Gage detail is provided. Alterations to the casing, if necessary, shall be coordinated with the dam safety program so as to not inhibit the future measurement of water levels, down hole camera monitoring or cleanout operations. All locks installed at the seepage pipes shall be identically keyed to other instrumentation locks.~~

~~3.8 OUTLET STILLING BASIN:~~

~~3.8.1 Install Lighting.~~

~~Provide at least 0.5 foot candles at 6" above grade.~~

PART 4 FORT RANDALL PROJECT SECURITY INSTALLATION CONTRACT CRITERIA.

Security upgrades to existing systems and additions, incorporating increased detection and delay features. Provides deterrence of unsophisticated adversaries and support of armed guards at heightened Force Protection levels. All new equipment shall meet with Electronic Security Center's (ESC) specifications for the CPSP Program.

4.1 Overall Project Requirements:**4.1.1 Provide New Separate Security Panel.**

New panel shall separate security detection system from fire detection system, which exists in the current Notifier panels. New security panels shall form an integrated security detection system with alarm assessment provided by CCTV's with a view of the alarming area. When a security alarm occurs, the system shall automatically bring up the CCTV with the view of the alarmed area. The new security system shall have provisions to support a future centralized reporting center (remote from site). These provisions shall include all security alarm monitoring and control functions along with all video and CCTV controls precisely as they are for the on-site monitoring center. The system shall be provided with an operator control/monitoring console which shall consist of two 19" monitors, one keyboard, one mouse/pointer device, and one CCTV controller for selecting CCTVs and controlling pan-tilt-zoom functions. This console shall be located in the Control Room. The other panels required for the security systems should be located in or near the existing Computer Room. The system shall provide not less than 7 days online digital storage for all cameras including camera number, locate, date, and time stamping.

~~**4.1.2 Provide New Fiber Optic Cable from Powerhouse to Intake.**~~

~~New 12 count fiber optic cable shall support communications for new security system, CCTV video and controls. Designers shall use existing spare ducts, which are serviceable for this purpose.~~

~~**4.1.3 Provide New Fiber Optic Cable from Powerhouse to Spillway.**~~

~~Provide New Fiber Optic Cable from Powerhouse to Spillway.~~

~~**4.1.4 New Portable Guard Booth with Support Connections.**~~

~~The new guard booth shall be as specified in Section 01003.~~

4.2 POWERHOUSE:**4.2.1 Automated Vehicle Resistant "Crash Beam" Gate on Main Entrance.**

Install new vehicle resistant crash beam gate on the interior of the existing automatic gate.

Provide entry control system (eg. Pedestal-interactive voice and video communication with proximity type card reader outside fence at existing automatic gate).

4.2.2 Repair/Upgrade Existing Fence.

1. All fence repaired/upgraded, bottom rails, etc., to meet FE 6 sensored requirements.
2. Correct clearance under fence to comply with standards.
3. Add perimeter fence extension with gates as shown on sketch.
4. Install perimeter lighting to meet CCTV FC levels with uniformity requirements.
5. Fence improvements shall be made to establish a contiguous vehicle barrier system around the powerhouse.
6. Install ladder access closure barriers for four locations; two at

flood tunnel stilling basin and two along outlet works west wall.

4.2.3 Perimeter Fence Detection (Fiber Optic Fence Sensor).

Treat gates as separate sensor zones. Bi-Static microwave placed inside existing automatic gate.

4.2.4 Upgrade Existing Cameras to Low Light PTZ Cameras.

Replace all existing cameras with new PTZ CCTV cameras.
Add new cameras as required for 100% coverage of the perimeter fence.
Deliverable to confirm exact number and location for PTZ cameras.
Include digital storage for all cameras.

~~4.2.5 Install Window Guards on Interior Ground Level Windows to a Height of 14 Feet.~~

~~If glass blocks exist, delete requirement.
Other openings will require expanded metal mesh mount inside. See Section 01003 for window guard requirements.~~

~~4.2.6 Replace Existing Doors with Glass Panels with Security Rated Doors.~~

- ~~1. Visitor Lobby: Replace inner doors and frames with new security-rated doors and frames with 96 square inch viewing panel and add dual technology interior volumetric sensors located in foyer. As alternative to replacing doors, evaluate using roll down security grate inside of these doors.~~
- ~~2. Replace Control Room double door with security doors with removable mullion and 96 square inch viewing panel.~~
- ~~3. Replace Locker Room door with security door with 96 square inch viewing panel. See Section 01003 for window guards, doors, glass, and door hardware requirements.~~

~~4.2.7 Install Electric Strike Locks with Card Readers on Doors.~~

~~Provide proximity type card reader on employee entrance door on El. 1384.5.
Include hardware for PIN access at Charlie/Delta. See Section 00110, Recommended Equipment List, paragraph 5.4.1.1 for Description of Electric Strikes and Card Readers and Section 01003 for additional door hardware requirements.~~

4.2.5 Security Workstation in Control Room.

Provide system workstation approximately 3' by 5' for monitoring and control as coordinated with project within the Control Room.

~~4.2.9 Deadbolt all Other Exterior Doors.~~

~~Not at doors with card readers.
Install panic bars only on new exterior doors. See Section 01003 for door hardware requirements.~~

4.2.6 Install Telephonic Auto-Dialer

Auto-dialer shall be in the Control Room connecting the alarm monitor to local law enforcement offices to initiate if operator fails to respond to a security alarm condition within a specified time frame.

4.2.7 Not Used

~~4.2.12 Tunnel Terminal Access Building Improvements (8 Buildings).~~

~~Modify existing metal grating, which is access down to penstock, to have a solid metal cover and a high strength security lock.
Install BMS sensor for the building door.
Install dual technology exterior volumetric sensors near access ladder below the locked metal grating.~~

~~4.2.13 Polycarbonate Windows (Insulated Laminated Glass for Visitors Center (Lobby)).~~

~~Replace all glass between the Visitor Center and the Control Room and between the Visitor Center and the Erection Bay with insulating laminated glass. See Section 01003 for glass requirements.~~

~~4.3 SWITCHYARD:~~

~~4.3.1 Tunnels use Dual Tech Sensor near Hatch Covers.~~

~~For seven total existing Control/Power Cable Tunnels hatches (2 control & 5 power) provide new three point latching system to secure the hatch from within the tunnel with BMS sensors. Provide dual technology exterior volumetric sensors near Powerhouse end of the tunnels to detect anyone entering/leaving the tunnels.~~

~~4.3.2 Replace Power Cable Tunnel Building with Security Door.~~

~~Replace door with security door and frame with build in BMS. Install window guards over the inside of the exhaust air louvers. Add a dual technology exterior volumetric sensors on the inside. See Section 01003 for window guards, door, glass, and door hardware requirements.~~

~~4.4 INTAKE STRUCTURE:~~

~~4.4.1 New Security Doors.~~

- ~~1. Replace four upstream side trash rack rake deck doors with security doors.~~
- ~~2. Replace four downstream side intake structure tower access doors with security doors.~~
- ~~3. Provide embedded magnetic switches for the new doors.~~
- ~~4. Install dual technology interior volumetric sensors inside of the doors. (Investigate using one sensor on inside stairs for two doors levels. Note: doors access the same stairs.)~~
- ~~5. Install window guards on the inside of windows. See Section 01003 for window guards, door, glass, and door hardware requirements.~~

~~4.4.2 Fence Replacement.~~

~~Replace existing fence and gate on the bridge with new FE 6 security fence with double swing gates, and two side outriggers. Fence and gate shall be designed to be removable so as to permit removal of intake gates for maintenance on a ten year schedule.~~

~~Install dual technology exterior volumetric sensors inside of the fence and gate.~~

~~4.4.3 Install Five (5) Low Light CCTV Cameras.~~

~~Provide five new cameras.~~

~~Locate CCTV on upstream and downstream sides of the intake structure.~~

~~4.4.4 Improve Existing Security for Intake Bridge Abutment.~~

~~Install a dual technology exterior volumetric sensors inside of the door to the intake bridge abutment below the bridge.~~

~~Provide metal grating to secure the expansion joint space below the bridge deck concrete and the steel beam to prevent entry into the intake structure.~~

~~4.4.5 Connect Existing BMS and PIR to New Fiber Optic Cable.~~

~~The Contractor shall replace existing PIR with dual technology interior volumetric sensors from the ESC preferred equipment list. New and existing security equipment will connect to new fiber optic cable back to the new~~

security panel.—

~~4.4.6 Install CCTV (PTZ) Cameras on a 30' Pole.~~

~~Locate on downstream side of the crest road, opposite the bridge.~~

~~4.5 SPILLWAY:~~

~~4.5.1 Replace PIR in Spillway Building.~~

~~Replace the existing PIR with dual technology interior volumetric sensors from the ESC preferred equipment list.~~

~~Install dual technology interior volumetric sensors on the inside of the building door that leads to the catwalk and trunion arm.~~

~~Install BMS on all three exterior doors.~~

~~4.5.2 Install PTZ CCTV Cameras.~~

~~1. Add a PTZ CCTV camera located downstream on the D wall at the change in slope.~~

~~2. Add a PTZ CCTV camera located upstream on new tower near the Visitors Building.~~

~~4.5.3 Install Window Guards on Windows.~~

~~Install window guards inside the spillway building windows which a less than 14' above ground. See Section 01003 for window guard requirements.~~

~~4.5.4 Install BMS on Land Side (East)~~

~~Install BMS on all three exterior doors.~~

~~Install dual technology interior volumetric sensors on the inside of the building door that leads to the catwalk and trunion arm.~~

~~Install window guards inside the air louver vent cover. See Section 01003 for window guard requirements.~~

~~4.6 EMBANKMENT:~~

~~Attachments:~~

~~Fort Randall Instrumentation Inventory and Figures~~

~~4.6.1 High Security Locks with Shackles on Relief Wells.~~

~~High security locking mechanism(s) shall be installed on each of the Embankment Relief Wells #1 #36 as identified in the Fort Randall relief well inventory and the Fort Randall instrumentation drawings. High security locking mechanism(s) shall be installed on each of the Outlet Works Relief Wells #1 #37 as identified in the Fort Randall relief well inventory and the Fort Randall instrumentation drawings. Locking mechanisms shall be installed to further restrain and hinder the removal of the upper portion of the protective well casings. Relief well locations and typical details are shown in the Fort Randall instrumentation drawings.~~

~~Alterations to the casing, if necessary, shall be coordinated with the dam safety office to not inhibit future down hole camera monitoring or cleanout operations. All locks installed at the relief wells shall be keyed to match other instrumentation on the project~~

~~4.6.2 High Security Locks with Shackles on Piezometers.~~

~~High security locking mechanism(s) shall be installed on each Piezometer at the project. Locking mechanisms shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. Location plans of the piezometers and typical details are shown in the Fort Randall instrumentation drawings. Alterations to the casing, if necessary, shall be coordinated with the dam safety office so as to not~~

~~inhibit the future measurement of water levels. All locks installed on the piezometers shall be keyed to match other instrumentation on the project.~~

~~4.6.3 High Security Locks with Shackles on Inclinometers.~~

~~High security locking mechanism(s) shall be installed on each of the Inclinometer as identified in the Fort Randall inclinometer inventory and Fort Randall instrumentation drawings. Locking mechanisms shall be installed to further restrain and hinder the removal of the upper portion of the protective metal casing. Location plans and typical inclinometer details are shown in the Fort Randall instrumentation drawings. Alterations to the casing, if necessary, shall not inhibit the attainment of future measurements with downhole equipment. All locks installed at the inclinometers shall be keyed to match other instrumentation on the project.~~

~~4.6.4 Harden Riser Pipes.~~

~~Backfill and glacial drain riser pipes as identified in the Fort Randall instrumentation inventory and drawings shall be hardened by enclosing the pipes within a protective concrete structure and installing a high security locking mechanism. Location plans of the riser pipes are shown in the Fort Randall instrumentation drawings. The details of the hardening shall be coordinated with the dam safety office so as to not inhibit future down-hole camera monitoring or cleanout operations. All locks installed at the riser pipes shall be keyed to match other instrumentation on the project.~~

-- End of Section --